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EXAMINER	
QUINONES, ISMAEL C	
ART UNIT	**PAPER NUMBER**
2686	5

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/077,914	BOCH ET AL.	
	Examiner	Art Unit	
	Ismael Quiñones	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on September 10, 2002 has being considered by the examiner and made of record in the application file.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 30-35 and 49** are rejected under 35 U.S.C. 102(e) as being anticipated Cook et al. (U.S Pat. No. 6,580,728).

Regarding **claim 30**, Cook et al. disclose a combined wireless radio receiver and signal conversion unit for use in a communication system (A remote terminal; *Figs. 1-3, items 24, 62, and 114*), the unit comprising: a radio receiver for receiving a wireless radio signal carrying digital data (A receiving antenna for

receiving radio frequency signals; *col. 3, lines 30-34; Fig. 2, item 60*); a converter for converting the received radio signal carrying digital data into a signal having a form which can be read by end use subscriber terminating equipment (A local multipoint distribution system (LMDS) modem for converting a radio frequency signal into a digital signal suitable for a customer site such as digital subscriber line; *col. 3, lines 39-48; Fig. 2, item 66*); and an output device for outputting the converted signal (Outputting the converted (digital signal) into a multiplexer or output device (DSLAM); *Fig. 2, item 68*).

Regarding **claim 31**, and as applied to claim 30, Cook et al. disclose the aforementioned combined unit, wherein the converter is arranged to convert the received radio signal into a signal contained in a frequency band above the audio frequency band allocated for voice channels on a telephone subscriber line (Converting the radio frequency signal into a digital signal form such as digital subscriber line form (xDSL), wherein digital data is contained in a high frequency band (i.e. multimedia transmission) over POTS twisted copper wires or telephone subscriber line; *col. 3, lines 8-24 and lines 39-46*).

Regarding **claim 32**, and as applied to claim 31, Cook et al. disclose the aforementioned unit, wherein the signal converter is adapted to convert the radio signal into a Digital Subscriber Line formatted signal (xDSL; *col. 3, lines 21-22*).

Regarding **claim 33**, and as applied to claim 32, Cook et al. disclose the aforementioned unit, wherein the signal converter is adapted to convert the radio signal into any one or more of a VDSL formatted signal (*col. 3, lines 21-24*).

Regarding **claim 34**, and as applied to claim 30, Cook et al. disclose the aforementioned unit wherein the output device is arranged to output the converted signal onto wiring of the type previously installed in a subscriber's premises capable of conveying communication signals (Outputting digital signals over from a LMDS modem to a multiplexer which is connected as well through digital signal lines to customer sites; col. 3, lines 39-46; *Fig. 2, items 66-80*).

Regarding **claim 35**, and as applied to claim 30, Cook et al. disclose the aforementioned unit wherein the converter is adapted to output the converted signal onto at least one of a twisted-pair transmission line (Converting the radio signals into digital signals connected to a demultiplexer for use with standard two wire twisted pairs; *col. 3, lines 39-48*).

Regarding **claim 49**, and as applied to claim 30, Cook et al. disclose the aforementioned unit wherein said converter is adapted to support any one of DSL communication protocols (DSLAM; *col. 3, lines 21-22 and lines 43-45*).

5. **Claims 42-45 and 50** are rejected under 35 U.S.C. 102(e) as being anticipated by Bell (U.S Pat. No. 6,725,059).

Regarding **claim 42**, Bell discloses a combined wireless radio transmitter and signal conversion unit for use in a communication system (*Fig. 2, items 112, 125, and 104*) comprising an interface device capable of reading communication signals having a form output from end user terminating equipment (An RF interface disposed in communications with DSL line cards in which the DSL line cards are provided with circuitry for handling signals from DSL equipment

provided at the customer premises (i.e., telephones, computers); *col. 2, lines 55-58; col. 5, line 66 thru col. 6, line 26*), and a wireless radio transmitter (A wireless transceiver; *Fig. 2, item 104*), the interface device being arranged to convert the received signal into a signal suitable for transmission by the transmitter (The RF interface receiving digital signals conditioning them for wireless transmission; *col. 6, lines 20-26*), the transmitter being arranged to transmit the signal received from the interface device as a wireless radio signal (After conditioning the digital signals for wireless transmission, transmitting them over a wireless transceiver; *col. 6, lines 20-26*).

Regarding **claim 43**, and as applied to claim 42, Bell discloses the aforementioned combined unit, in which the interface device is capable of reading a Digital Subscriber Line formatted signal (The RF interface in communications with various DSL cards, which are equipped to handle digital signals; *col. 6, lines 6-26*).

Regarding **claim 44**, and as applied to claim 42, Bell discloses the aforementioned combined unit wherein the interface device is connected to and receives the input signal on wiring (Wherein the RF interface is connected to various DSL line cards, furthermore the DSL line cards including conventional line interface circuitry for communicating with DSL equipment and to transmit and receive voice signals within the POTS frequency band; *col. 3, lines 63-64; col. 6, lines 2-12*), which is previously installed in the subscriber's premises for transmitting electrical signals (Wherein the RF interface is electrically connected to the customer premises; *col. 3, line 63 thru col. 4, line 1*).

Regarding **claim 45**, and as applied to claim 42, Bell discloses the aforementioned combined unit wherein the interface device is adapted for connection to at least one a fiber for carrying optical signals (*col. 2, lines 1-21 and lines 36-39; col. 6, lines 33-37*).

Regarding **claim 50**, and as applied to claim 42, Bell discloses the aforementioned combined unit wherein said interface device is adapted to support DSL communication protocols (*col. 6, lines 16-26; Fig. 2, items 112, 113-121 and item 125*).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claims 1-11, and 16-21, and 27-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Behbahami (U.S P.G.-Pub. No. 2002/0052188).

Regarding **claim 1**, Cook et al. discloses a combined wireless transceiver and signal conversion unit (A remote terminal; *Figs. 1-3, items 24, 62, and 114*) comprising a radio receiver for receiving a wireless radio signal (A receiving antenna for receiving radio frequency signals; *col. 3, lines 30-34; Fig. 2, item 60*), a converter for converting the signal into a form having a communications protocol supported by a communications port of a user digital device (A local multipoint distribution system (LMDS) modem for converting a radio frequency signal into a digital signal suitable for a customer site such as digital subscriber line; *col. 3, lines 39-48; Fig. 2, item 66*), and an output for outputting the converted signal (Outputting the converted (digital signal) into a multiplexer or output device (DSLAM); *Fig. 2, item 68*), an input device for receiving a communications signal from the communication port of a user digital device (Input devices or customer sites receiving digital converted signals through digital signal lines; *Fig. 2, items 70-78*) and a transmitter for wireless transmission (An

antenna configured for two-way communications; *col. 3, 31-34; Fig. 2, item 64*), therefore Cook et al. suggest converting wire line customer site data for wireless transmission (*col. 3, lines 57-65*).

In the same field of endeavor, Behbahami discloses a system and a method relying on Access Points that use RF up/down converter logic to convert intermediate frequency signals into wireless signals for transmission (*Page 2, Paragraphs 19 and 24; Fig. 2, items 220 and 225*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. system for broadband communications to include wireless conversion for transmission as taught by Behbahami for the purpose of extending the coverage area of a wireless network through the infrastructure of existing wire-line network.

Regarding **claim 2**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein said input device is adapted to support the communications protocol of communication signals from the communications port of a user digital device (Wherein the customer sites receive digital signals through a digital subscriber line access multiplexer, both connected through customer digital signal lines which are XDSL, and DS0 and DS1 lines; *col. 3, lines 20-24 and lines 39-48; Fig. 2, items 68-80*).

Regarding **claim 3**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein said converter and input device are adapted to support the same

communications protocol supported by a communications port of a user digital device (The LMDS modem converting radio frequency signals into digital signals, furthermore connected to a multiplexer, said multiplexer taking the form of a digital subscriber line access multiplexer; *col. 3, lines 20-24; lines 39-48*).

Regarding **claim 4**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein at least one of the converter and the input device is adapted to convert a signal it receives for transmission into a digital subscriber line formatted signal (*col. 3, lines 20-24; Fig. 2*).

Regarding **claim 5**, and as applied to claim 4, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein at least one of the signal converter and the input device is adapted to convert the received signal into any one or more of a Very High Data Rate Digital Subscriber Line (VDSL) formatted signal (*col. 3, lines 21-24*).

Regarding **claim 6**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein at least one of said converter and input device are adapted to support at least one of an optical signal communications protocol (Wherein the radio terminal or combined unit is connected to a network through a fiber connection, or a central office is connected to LMDS hub trough a fiber connection, from which signal data is routed later, transmitting the signal through a two-way wireless link to the radio terminal, subsequently conveying the signals to the customer sites into a converted digital signal, therefore supporting optical

signal communications protocol through the systems which includes the LMDS modem and the customer sites; *col. 3, lines 5-6, lines 51-54; col. 3, line 66 thru col. 4, line 9*).

Regarding **claim 7**, and as applied to claim 2, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Behbahami discloses wherein said radio receiver comprises a down-converter for converting the received radio signal to an intermediate frequency signal (An Access Point Comprising a down-converter that converts radio frequency signals into intermediate frequency (IF) signals so that the signals can be sent over a wired link; *Page 2, Paragraph 18; Fig. 2, item 220*).

Regarding **claim 8**, and as applied to claim 7, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Behbahami discloses the combined unit further comprising a tuner for demodulating the intermediate frequency signal (An intermediary unit receiving down-converted IF signals to convert said signals into digital signals, subsequently sending the digital converted signals through a digital communication signal to a gateway or server; *Page 2, Paragraph 22*).

Regarding **claim 9**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Behbahami discloses the combined unit further comprising a tuner for demodulating the received radio signal (An intermediary unit receiving down-converted IF signals to convert said signals into digital signals, subsequently sending the digital

converted signals through a digital communication signal to a gateway or server; *Page 2, Paragraph 22; Fig. 2, items 245, 250, 255, 260, and 265*).

Regarding **claim 10**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Behbahami discloses wherein said transmitter comprises a modulator for modulating a communications signal received from said input device (The intermediary unit using a Digital-to-IF converter converting digital signals to IF signals and sending the converted IF signals over a wired link to the wired network; *Pages 2-3, Paragraph 26; Fig. 2, items 245, 225, 235, and 240*).

Regarding **claim 11**, and as applied to claim 10, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Behbahami discloses the combined unit further comprising an up-converter for up-converting the signal from said modulator to the desired wireless transmission frequency (Up-Converting the received signals over the wired network to wireless signal, sending the wireless signals over wireless links, wherein the wireless signals can be radio frequency signals; *Pages 2-3, Paragraphs 26-28; Fig. 2, items 230, 225, 220, and 215*).

Regarding **claim 16**, Cook et al. discloses a combined wireless transceiver and signal conversion unit (A remote terminal; *Figs. 1-3, items 24, 62, and 114*) comprising a radio receiver for receiving a wireless radio signal (A receiving antenna for receiving radio frequency signals; *col. 3, lines 30-34; Fig. 2, item 60*), a converter for converting the signal to a form suitable for reception by a communications port of a user digital device (A local multipoint distribution

system (LMDS) modem for converting a radio frequency signal into a digital signal suitable for a customer site such as digital subscriber line; *col. 3, lines 39-48; Fig. 2, item 66*), and an output for outputting the converted signal (Outputting the converted (digital signal) into a multiplexer or output device (DSLAM); *Fig. 2, item 68*), an input device for receiving a communications signal from a communications port of a user digital device (Input devices or customer sites receiving digital converted signals through digital signal lines; *Fig. 2, items 70-78*), said input device being adapted to support the communications protocol of communication signals from the communications port of a user digital device (Wherein the customer sites receive digital signals through a digital subscriber line access multiplexer, both connected through customer digital signal lines which are XDSL, and DS0 and DS1 lines; *col. 3, lines 20-24 and lines 39-48; Fig. 2, items 68-80*) and a transmitter for wireless transmission (An antenna configured for two-way communications; *col. 3, 31-34; Fig. 2, item 64*), therefore Cook et al. suggest converting wire line customer site data for wireless transmission (*col. 3, lines 57-65*).

In the same field of endeavor, Behbahami discloses a system and a method relying on Access Points that use RF up/down converter logic to convert intermediate frequency signals into wireless signals for transmission (*Page 2, Paragraphs 19 and 24; Fig. 2, items 220 and 225*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. system for broadband communications to include wireless conversion for transmission as taught by

Behbahami for the purpose of extending the coverage area of a wireless network through the infrastructure of existing wire-line network.

Regarding **claim 17**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein said converter is adapted to convert the received signal into a form having a communications protocol supported by a communications port of a user digital device (A local multipoint distribution system (LMDS) modem for converting a radio frequency signal into a digital signal suitable for a customer site such as digital subscriber line; *col. 3, lines 39-48; Fig. 2, item 66*).

Regarding **claim 18**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein said converter and input device are adapted to support the same communications protocol supported by a communications port of a user digital device (The LMDS modem converting radio frequency signals into digital signals, furthermore connected to a multiplexer, said multiplexer taking the form of a digital subscriber line access multiplexer; *col. 3, lines 20-24; lines 39-48*).

Regarding **claim 19**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein at least one of the converter and the input device is adapted to convert a signal it receives for transmission into a digital subscriber line formatted signal (*col. 3, lines 20-24; Fig. 2*).

Regarding **claim 20**, and as applied to claim 19, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al.

disclose wherein at least one of the signal converter and the input device is adapted to convert the received signal into any one or more of a Very High Data Rate Digital Subscriber Line (VDSL) formatted signal (*col. 3, lines 21-24*).

Regarding **claim 21**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein at least one of said converter and input device are adapted to support at least one of an optical signal communications protocol (Wherein the radio terminal or combined unit is connected to a network through a fiber connection, or a central office is connected to LMDS hub trough a fiber connection, from which signal data is routed later, transmitting the signal through a two-way wireless link to the radio terminal, subsequently conveying the signals to the customer sites into a converted digital signal, therefore supporting optical signal communications protocol through the systems which includes the LMDS modem and the customer sites; *col. 3, lines 5-6, lines 51-54; col. 3, line 66 thru col. 4, line 9*).

Regarding **claim 27**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein said converter is adapted to convert a received radio signal having a first communications protocol for wireless communications between the transceiver (A modem for converting a radio frequency signal into a digital signal; *col. 3, lines 39-41; Fig. 2, items 60, 62, and 66*) and a transmitter with which it is adapted to communicate into a signal having a second protocol supported by a communications port of a user digital device (An antenna for two-way wireless

communications adapted to communicate signals having a second protocol such as digital subscriber line supported by customer sites; *col. 3, lines 41-48; Fig. 2, items 50, 60, 68, and 70-80*).

Regarding **claim 28**, and as applied to claim 22, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Behbahami discloses wherein an input device is adapted to support a communications protocol of a communications port of a user digital device and convert the signal into one having a second protocol suitable for wireless communications between the transceiver and a receiver with which it is adapted to communicate (Converting digital data into IF signals, subsequently sending the IF signals into a wired communication link, furthermore up-converting the IF signals into wireless signals for wireless transmission; *Page 2, Paragraph 26*).

10. **Claims 12-15, and 22-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Behbahami (U.S P.G.-Pub. No. 2002/0052188), further in view of Asano et al. (U.S. Pat. No. 6,336,040).

Regarding **claim 12**, and as applied to claim 1, Cook et al. in view of Behbahami disclose the aforementioned combined unit. Cook et al. in view of Behbahami fail to clearly specify a monitoring device for monitoring a status of at least one of the radio receiver, radio transmitter and another component of said unit, and for outputting a signal representative of the monitored status.

In the same field of endeavor, Asano et al. disclose a mobile radio system wherein a control CPU monitors the state of a transmitter and outputs a signal representative of the monitored status such as an acceptance signal supplied to the transmitter to inhibit or suppress unnecessary or abnormal radio wave transmission (*col. 2, lines 8-19; col. 3, lines 13-36*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. in view of Behbahami system for broadband communications having wireless conversion for transmission to include a monitoring device as taught by Asano et al. for the purpose of suppressing or inhibiting radio waves when abnormalities are found relating to the hardware of a communication device therefore avoiding interference in a communications system.

Regarding **claim 13**, and as applied to claim 12, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein the monitoring device or control CPU detects abnormal transmission power levels, the transmitter of a mobile radio apparatus (i.e. base station) is instructed to transmits a signal via an antenna of said mobile radio apparatus for inhibiting or suppressing the transmission of a mobile radio apparatus partner (*col. 3, line 58 thru col. 4, line 33*).

Regarding **claim 14**, and as applied to claim 12, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein the

monitoring device outputs a signal representative of the monitored status to the transmitter unit via an instructed command of the control CPU (Wherein a disabled control signal is supplied to the transmitter to inhibit transmission; *col. 3, lines 22-36*).

Regarding **claim 15**, and as applied to claim 12, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein said status comprises a characteristic indicative of a condition of the transmitter (A status such as a transmission output acceptance signal for inhibiting transmission by stopping the power supply to the transmission power amplifier; *col. 4, lines 26-49*).

Regarding **claim 22**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. Cook et al. in view of Behbahami fail to clearly specify a monitoring device for monitoring a status of at least one element of said combined unit, and for outputting a signal representative of the monitored status.

In the same field of endeavor, Asano et al. disclose a mobile radio system wherein a control CPU monitors the state of a transmitter and outputs a signal representative of the monitored status such as an acceptance signal supplied to the transmitter to inhibit or suppress unnecessary or abnormal radio wave transmission (*col. 2, lines 8-19; col. 3, lines 13-36*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. in view of Behbahami

system for broadband communications having wireless conversion for transmission to include a monitoring device as taught by Asano et al. for the purpose of suppressing or inhibiting radio waves when abnormalities are found relating to the hardware of a communication device therefore avoiding interference in a communications system.

Regarding **claim 23**, and as applied to claim 22, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein said status comprises a characteristic indicative of a condition of the transmitter (A status such as a transmission output acceptance signal for inhibiting transmission by stopping the power supply to the transmission power amplifier; *col. 4, lines 26-49*).

Regarding **claim 24**, and as applied to claim 22, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein said at least one element comprises at least one of the radio transmitter (*Fig. 1, items 12 and 13; Fig. 2, items 21 and 22*).

Regarding **claim 25**, and as applied to claim 22, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein the monitoring device or control CPU detects abnormal transmission power levels, the transmitter of a mobile radio apparatus (i.e. base station) is instructed to transmits a signal via an antenna of said mobile radio apparatus for inhibiting or

suppressing the transmission of a mobile radio apparatus partner (*col. 3, line 58 thru col. 4, line 33*).

Regarding **claim 26**, and as applied to claim 22, Cook et al. in view of Behbahami, further in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein the monitoring device outputs a signal representative of the monitored status to the transmitter unit via an instructed command of the control CPU (Wherein a disabled control signal is supplied to the transmitter to inhibit transmission; *col. 3, lines 22-36*).

11. **Claims 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Behbahami (U.S P.G.-Pub. No. 2002/0052188), further in view of Thomas (U.S. Pat. No. 6,498,939).

Regarding **claim 29**, and as applied to claim 16, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein Local multipoint distribution system (LMDS) technologies are generally utilized in the gigahertz frequency range (*col. 2, lines 39-44*). Both Cook et al. and Behbahami fail to clearly specify transmitting and receiving wireless signals at a particular range of 2Ghz to 60 Ghz.

In the same field of endeavor, Thomas discloses a wireless network transmitting bi-directional data using high carrier frequencies in the range of 2 to 60 Ghz (*col. 4, lines 53-57*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. in view of Behbahami system for broadband communications transmitting at high frequencies to particularly transmit and receive data at a frequency range between 2 and 60 Ghz as taught by Thomas for the purpose of transmitting digital data at every increasing data rates for multimedia information.

12. **Claims 36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Asano et al. (U.S. Pat. No. 6,336,040).

Regarding **claim 36**, and as applied to claim 30, Cook et al. disclose the aforementioned combined unit. Cook et al. fail to clearly specify a monitoring device for monitoring a status of at least one of the radio receiver and the converter and for outputting a signal representative of the monitored status.

In the same field of endeavor, Asano et al. disclose a mobile radio system wherein a control CPU monitors the state of a transmitter and outputs a signal representative of the monitored status such as an acceptance signal supplied to the transmitter to inhibit or suppress unnecessary or abnormal radio wave transmission (*col. 2, lines 8-19; col. 3, lines 13-36*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. system for broadband communications having wireless conversion to include a monitoring device as taught by Asano et al. for the purpose of suppressing or inhibiting radio waves

when abnormalities are found relating to the hardware of a communication device therefore avoiding interference in a communications system.

Regarding **claim 37**, and as applied to claim 36, Cook et al. in view of Asano et al. disclose the aforementioned combined unit comprising a monitoring device. In addition Asano et al. disclose wherein the output device is arranged to output the monitoring signal to the transmitter unit via an instructed command of the control CPU (Wherein a disabled control signal is supplied to the transmitter to inhibit transmission; *col. 3, lines 22-36*).

13. **Claim 38** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Thomas (U.S. Pat. No. 6,498,939).

Regarding **claim 38**, and as applied to claim 30, Cook et al. in view of Behbahami disclose the aforementioned combined unit. In addition Cook et al. disclose wherein Local multipoint distribution system (LMDS) technologies are generally utilized in the gigahertz frequency range (*col. 2, lines 39-44*). Cook et al. fail to clearly specify transmitting and receiving microwave radio signals at a particular range of 2 Ghz to 60 Ghz.

In the same field of endeavor, Thomas discloses a wireless network transmitting bi-directional data using high carrier frequencies in the range of 2 to 60 Ghz (*col. 4, lines 53-57*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. system for broadband communications system transmitting at high frequencies to particularly transmit

and receive data at a frequency range between 2 and 60 Ghz as taught by Thomas for the purpose of transmitting digital data at every increasing data rates for multimedia information.

14. **Claims 39-41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al. (U.S Pat. No. 6,580,728) in view of Dalgleish et al. (U.S. Pat. No. 5,548,643).

Regarding **claims 39-41**, and as each respectively applied to claim 30, Cook et al. disclose the aforementioned combined unit. Cook et al. fail to clearly specify the combined unit having a mounting for mounting the unit to structure on the outside of a building (claim 39), the combined unit further comprising a housing enclosing said receiver and converter (claim 40), wherein said housing is adapted to prevent the ingress of moisture into the housing (claim 41).

In the same field of endeavor, Dalgleish et al. disclose an outdoor wireless base station having a support frame for mounting the base station upon a support wall (*col. 3, line 57 thru col. 4, line 8*), comprising a housing for receiving a circuit pack within the housing (*col. 3, lines 24-26*), wherein the housing is made out of a material permeable to moisture (*col. 2, lines 22-25*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. combined wireless receiver/converter unit to have an outdoor housing as taught by Dalgleish et al. for the purpose of protecting electrical equipment when exposed outside to various hazardous conditions.

15. **Claim 46** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (U.S Pat. No. 6,725,059) in view of Thomas (U.S. Pat. No. 6,498,939).

Regarding **claim 46**, and as applied to claim 42, Bell discloses the aforementioned combined unit. Bell fails to clearly specify a radio transmitter adapted to transmit radio signals having microwave frequencies in the range of 2 to 60 GHz.

In the same field of endeavor, Thomas discloses a wireless network transmitting bi-directional data using high carrier frequencies in the range of 2 to 60 Ghz (*col. 4, lines 53-57*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Bell system for broadband communications system transmitting at high frequencies to particularly transmit and receive data at a frequency range between 2 and 60 Ghz as taught by Thomas for the purpose of transmitting digital data at every increasing data rates for multimedia information.

16. **Claims 47 and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (U.S Pat. No. 6,725,059) in view of Dalgleish et al. (U.S. Pat. No. 5,548,643).

Regarding **claims 47 and 48**, and as each respectively applied to claim 42, Bell disclose the aforementioned combined unit to structure on a building (*col. 2, lines 7-12*). Bell fails to clearly specify the combined unit having a mounting for mounting the unit to structure on the outside of a building (claim 47), the

combined unit further comprising a housing enclosing said interface and transmitter (claim 48).

In the same field of endeavor, Dalgleish et al. disclose an outdoor wireless base station having a support frame for mounting the base station upon a support wall (*col. 3, line 57 thru col. 4, line 8*), comprising a housing for receiving a circuit pack within the housing (*col. 3, lines 24-26*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Cook et al. combined wireless receiver/converter unit to have an outdoor housing as taught by Dalgleish et al. for the purpose of protecting electrical equipment when exposed outside to various hazardous conditions.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. van der Kaay et al. (U.S. Pat. No. 5,774,789), RF Communication Signal Distribution System and Method.

b. Schaffer et al. (U.S. Pat. No. 5,911,123), System and Method for Providing Wireless Connections for Single-Premises Digital Telephones.

c. Swenson (U.S. Pat. No. 6,542,753), Gain Control for Multi-Channel Fixed Wireless Terminal.

d. Elrefaie et al. (U.S. Pat. No. 6,243,577), Frequency Translation to Local Multi-Point Distribution System for Personal Communications Services.

e. Sandler et al. (U.S. Pat. No. 5,983,117), System and Method for Interfacing a Standard Telephony Device to a Wireless Communication System.

18. Any response to this Office Action should be **faxed to** (703) 872-9306 or **mailed to:**

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Alexandria, VA 22313-1450

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19. Any inquiry concerning this communication on earlier communications from the Examiner should be directed to Ismael Quiñones whose telephone number is (703) 305-8997. The Examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

20. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379, and fax number

is (703) 746-9818. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703) 305-4700 or call customer service at (703) 306-0377.

Ismael Quiñones

I.Q.

August 17, 2004

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
8/20/04